

# Mendocino Coast District Hospital

SPC/NPC Overview Presentation | 05.05.2023

**Devenney**  
GROUP



# Agenda

Adventist Mendocino Coast

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1. Review Definition of SPC & NPC
2. Review SPC Upgrades On Campus
3. Review NPC Upgrades On Campus
4. Review New Hospital Construction
5. Review Pricing





# SPC & NPC Updates

Adventist Mendocino Coast



## GENERAL

BUILDINGS ON CAMPUS RANKED BETWEEN 2-5 FOR SPC & NPC BY HCAI (CALIFORNIA DEPARTMENT OF HEALTHCARE ACCESS AND INFORMATION)

BUILDINGS REQUIREMENTS TO BE MET BY **JAN. 1, 2030:**

SPC < 2 UPGRADED TO SPC 4D

NPC < 2 UPGRADED TO NPC 4D

SPC

NPC



# SPC & NPC Updates

Adventist Mendocino Coast

## GENERAL

BUILDINGS ON CAMPUS RANKED BETWEEN 2-4 FOR SPC & NPC BY HCAI (CALIFORNIA DEPARTMENT OF HEALTHCARE ACCESS AND INFORMATION)

BUILDINGS REQUIREMENTS TO BE MET BY **JAN. 1, 2030:**

SPC < 2 UPGRADED TO SPC 4D

NPC < 2 UPGRADED TO NPC 4D

## SPC

STRUCTURAL PERFORMANCE CATEGORY

REQUIREMENTS INCLUDE: UPGRADING STRUCTURAL ELEMENTS INCLUDING FOUNDATION, COLUMNS, ETC

## NPC



# SPC & NPC Updates

Adventist Mendocino Coast

## GENERAL

BUILDINGS ON CAMPUS RANKED BETWEEN 2-4 FOR SPC & NPC BY HCAI (CALIFORNIA DEPARTMENT OF HEALTHCARE ACCESS AND INFORMATION)

BUILDINGS REQUIREMENTS TO BE MET BY **JAN. 1, 2030**:

SPC < 2 UPGRADED TO SPC 4D

NPC < 2 UPGRADED TO NPC 4D

## SPC

STRUCTURAL PERFORMANCE CATEGORY

REQUIREMENTS INCLUDE: UPGRADING STRUCTURAL ELEMENTS INCLUDING FOUNDATION, COLUMNS, ETC

## NPC

NON-STRUCTURAL PERFORMANCE CATEGORY

REQUIREMENTS INCLUDE: INFRASTRUCTURE BRACING AND EQUIPMENT ANCHORAGE ALONG WITH UPGRADING WATER & FUEL STORAGE TANKS ON CAMPUS



# Overview | SPC/NPC Site Plan

Adventist Mendocino Coast

## OVERALL (HCAI) CAMPUS:



## 2030 SPC NON-COMPLIANT:



## 2030 NPC NON-COMPLIANT:

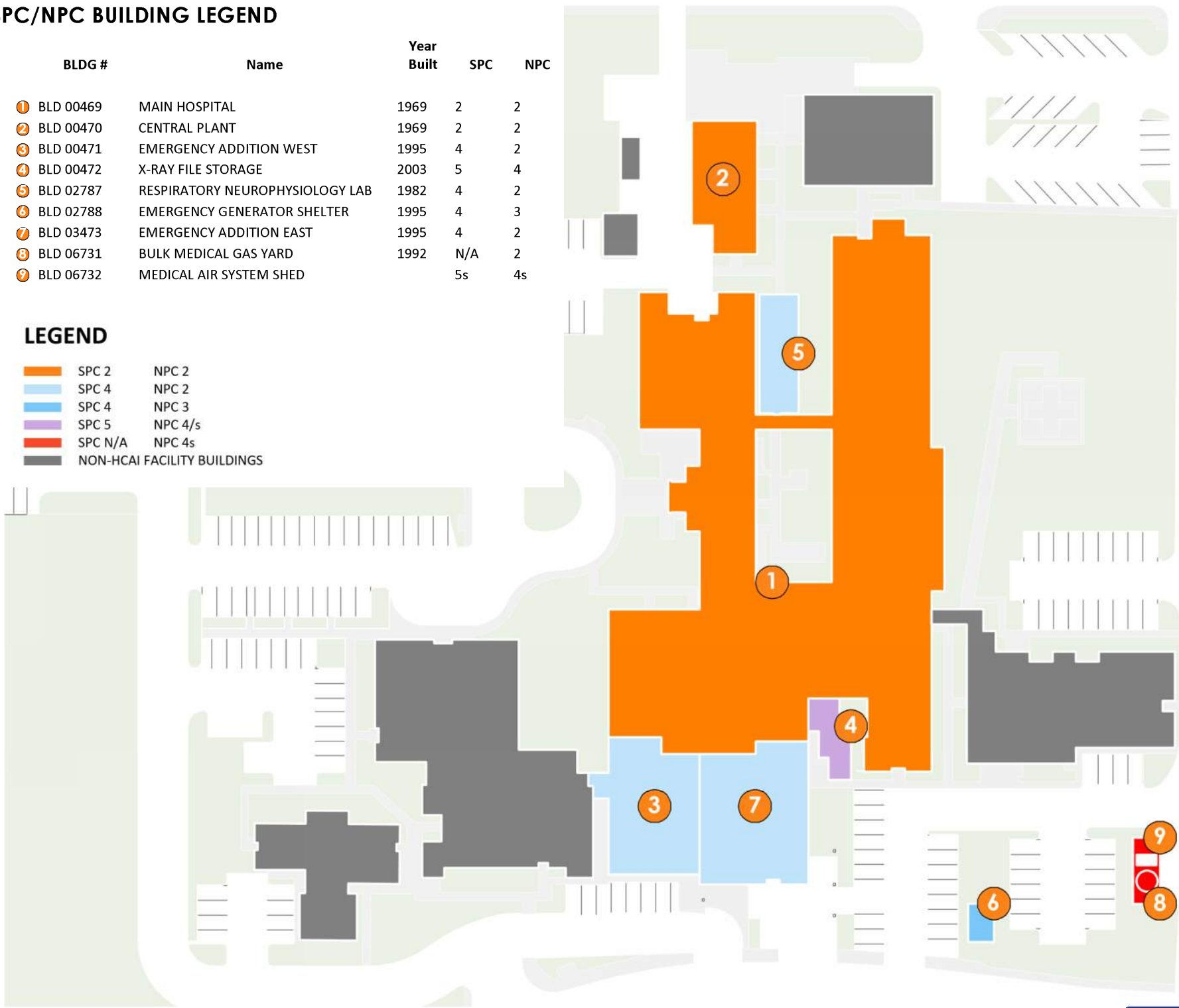


### SPC/NPC BUILDING LEGEND

BLDG #	Name	Year Built	SPC	NPC
1 BLD 00469	MAIN HOSPITAL	1969	2	2
2 BLD 00470	CENTRAL PLANT	1969	2	2
3 BLD 00471	EMERGENCY ADDITION WEST	1995	4	2
4 BLD 00472	X-RAY FILE STORAGE	2003	5	4
5 BLD 02787	RESPIRATORY NEUROPHYSIOLOGY LAB	1982	4	2
6 BLD 02788	EMERGENCY GENERATOR SHELTER	1995	4	3
7 BLD 03473	EMERGENCY ADDITION EAST	1995	4	2
8 BLD 06731	BULK MEDICAL GAS YARD	1992	N/A	2
9 BLD 06732	MEDICAL AIR SYSTEM SHED		5s	4s

### LEGEND

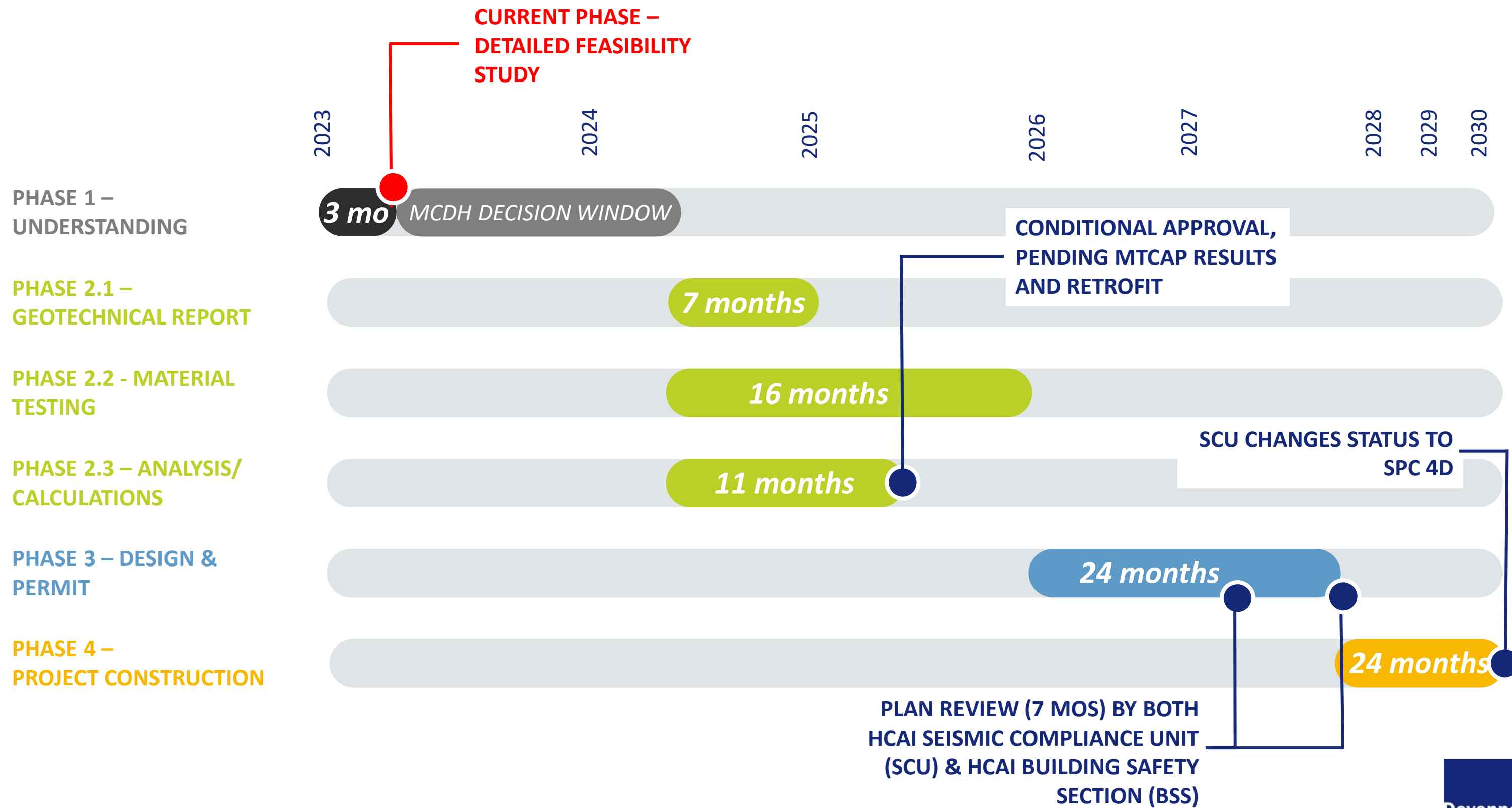
Orange	SPC 2	NPC 2
Light Blue	SPC 4	NPC 2
Blue	SPC 4	NPC 3
Purple	SPC 5	NPC 4/s
Red	SPC N/A	NPC 4s
Grey	NON-HCAI FACILITY BUILDINGS	





# Seismic Upgrade Process








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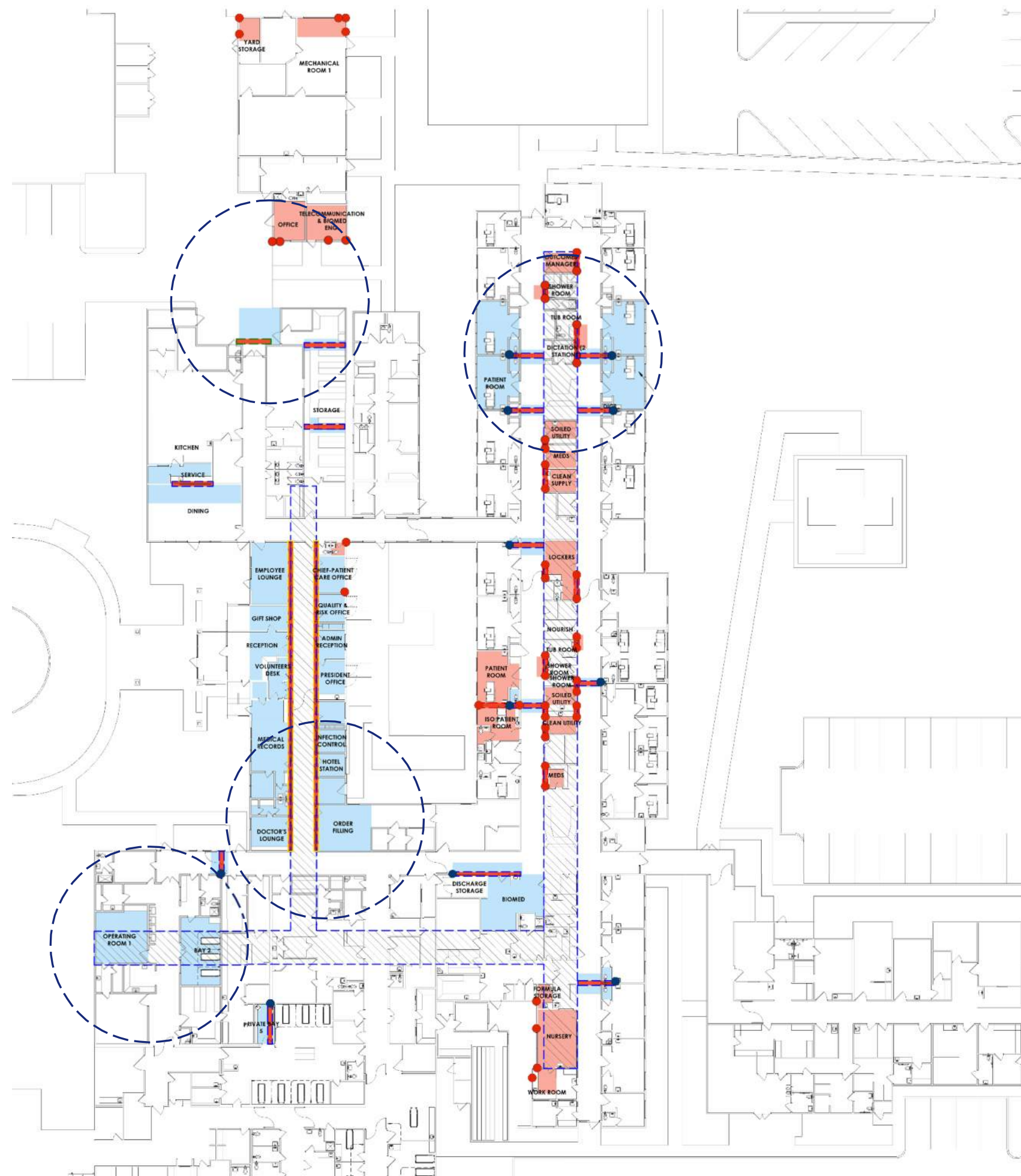




# SPC | Upgrades

## Adventist Mendocino Coast

- |   |  |
|---|--|
|    | NEW HOLDOWN                                    |
|    | NEW CONCRETE EXPANSION ANCHORS                 |
|    | ROOF COLLECTOR STRENGTHENING                   |
|    | NEW STRAP AND 4' SCAB ALONG SIDE OF ROOF JOIST |
|    | NEW PLYWOOD SHEATHING @ CEILING                |
|   | NEW CABLE SPACING IN ATTIC ABOVE               |
|  | NEW SEISMIC GAP BETWEEN BUILDING               |

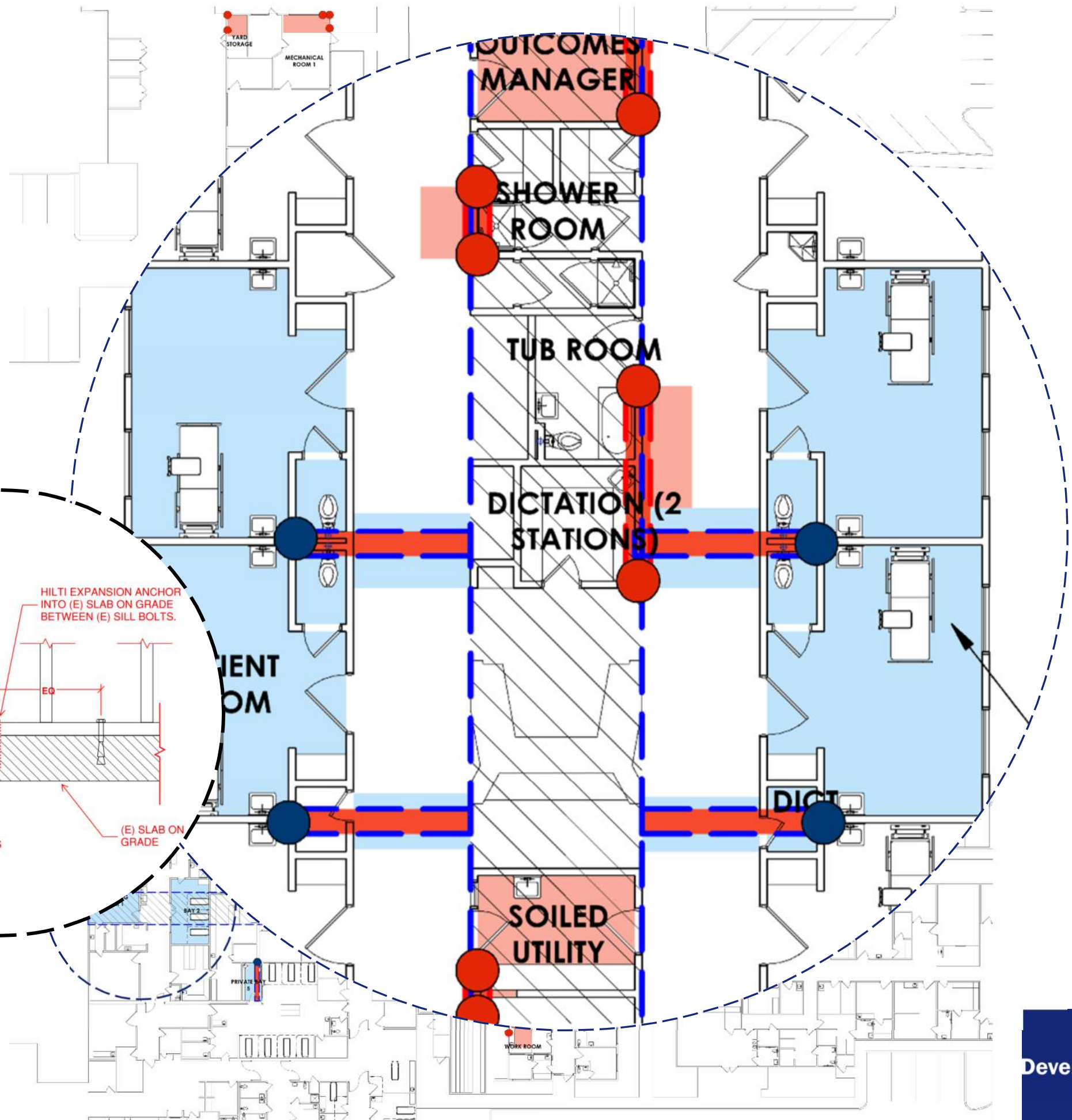
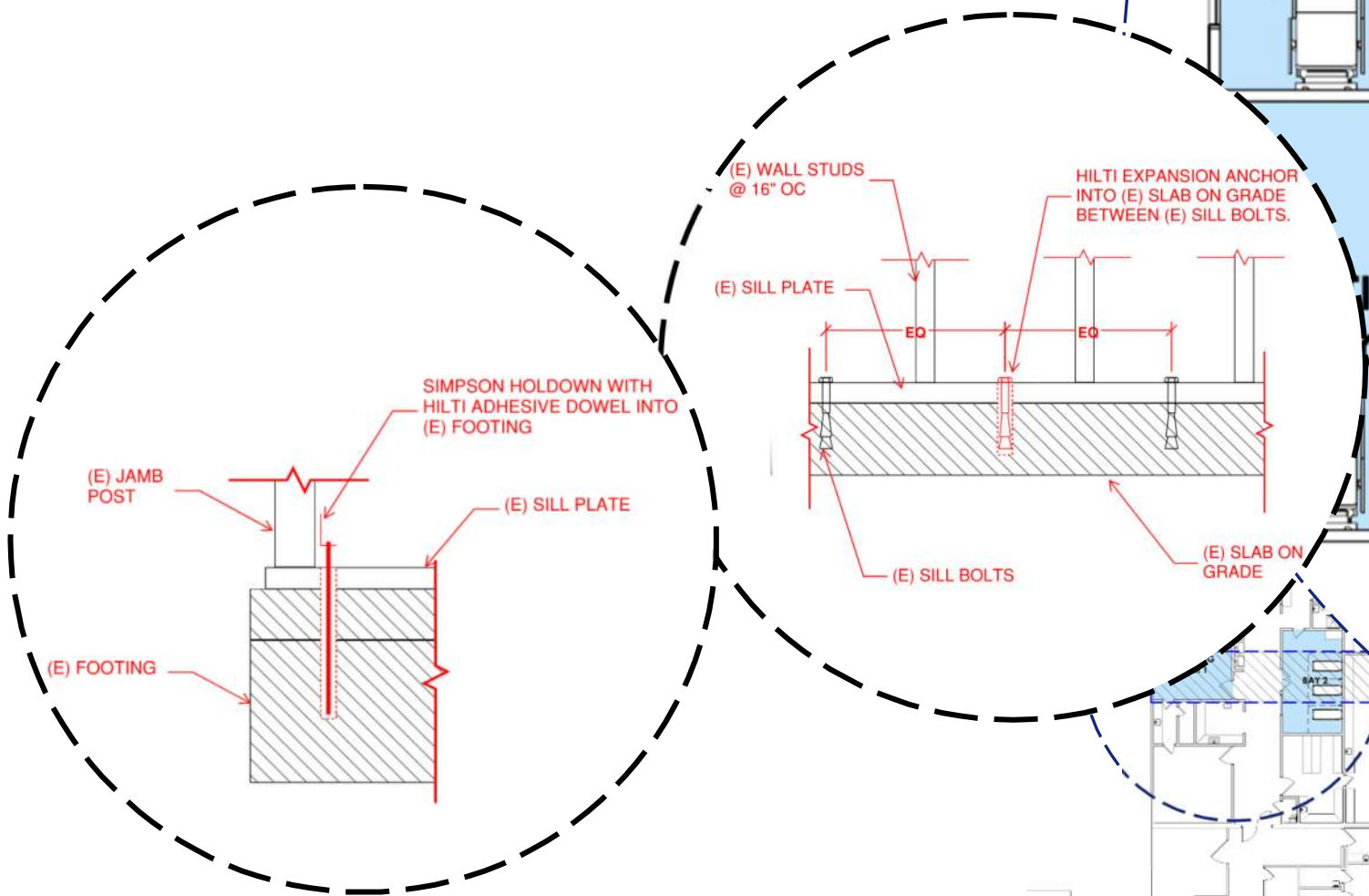




# SPC | Upgrades

Adventist Mendocino Coast

- NEW HOLDOWN
- NEW CONCRETE EXPANSION ANCHORS



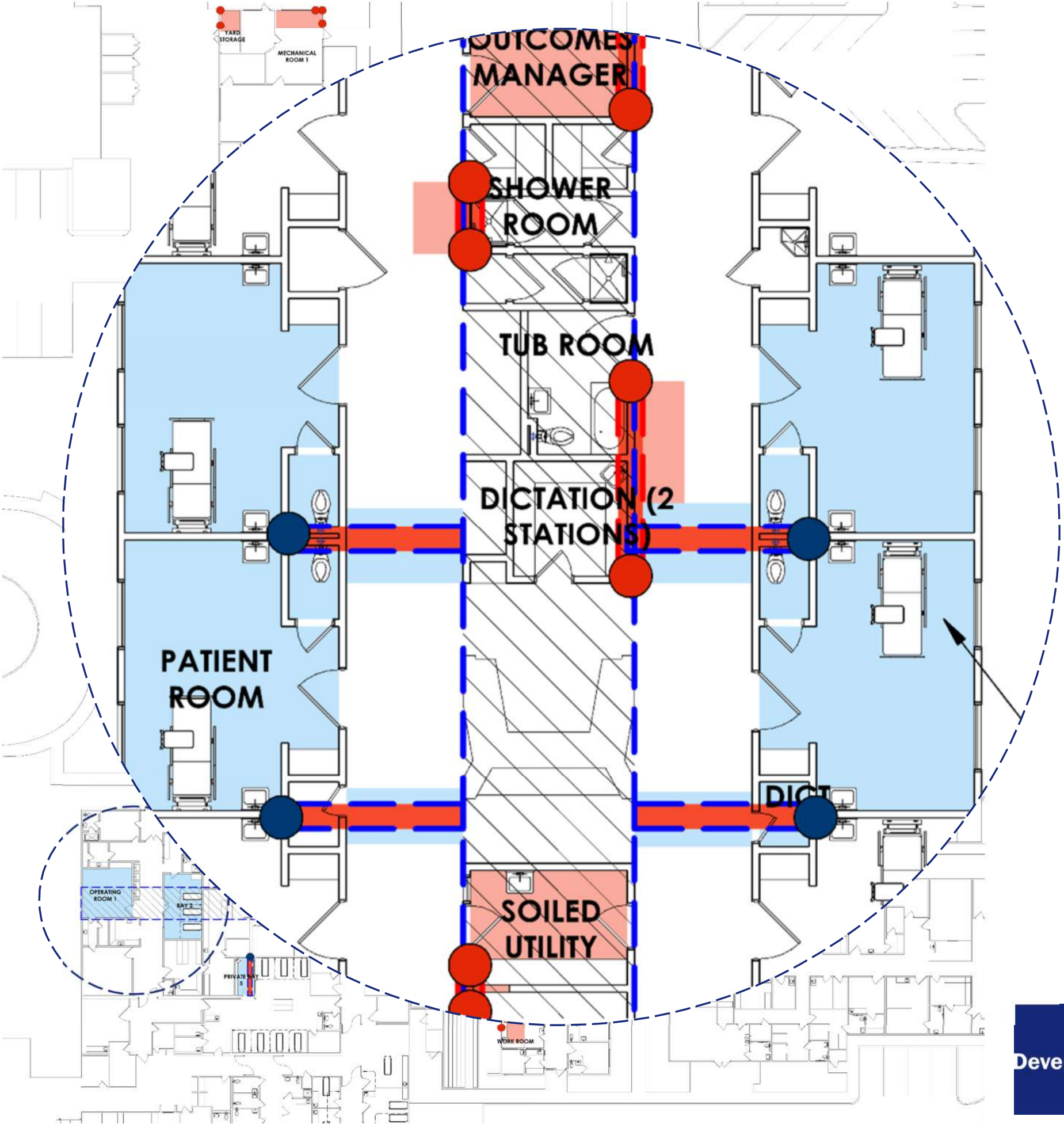


# SPC | Impacts

Adventist Mendocino Coast

-  **NEW HOLDOWN**
-  **NEW CONCRETE EXPANSION ANCHORS**

- CONSTRUCTION WILL HAPPEN WITHIN MOST SUPPORT ROOMS LIMITING IMPACT TO OPERATIONS
- AT TUB ROOMS OR SHOWER ROOM THE CONSTRUCTION WILL HAPPEN IN CORRIDOR TO NOT REQUIRE ACCESSIBILITY UPGRADES TO ROOM
- AT CORRIDOR CONSTRUCTION TEMPORARY INFECTION CONTROL BARRIERS WILL BE NEEDED AND MAY IMPACT OPERATIONS THROUGH CORRIDOR





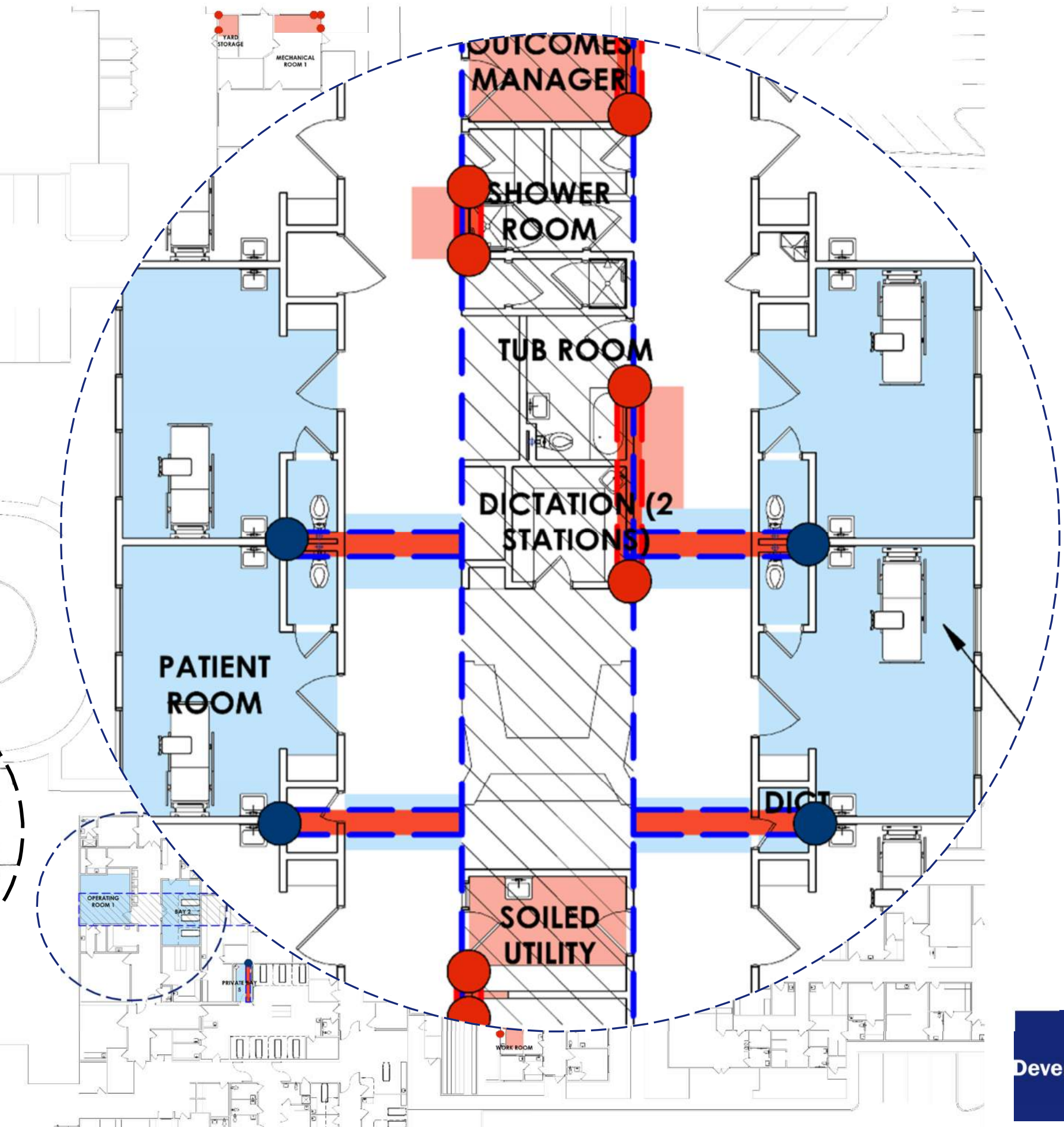
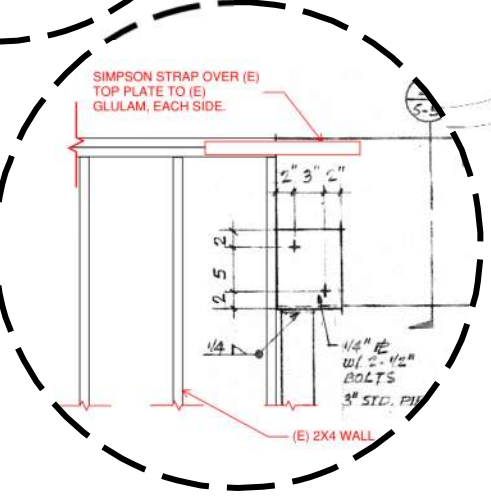
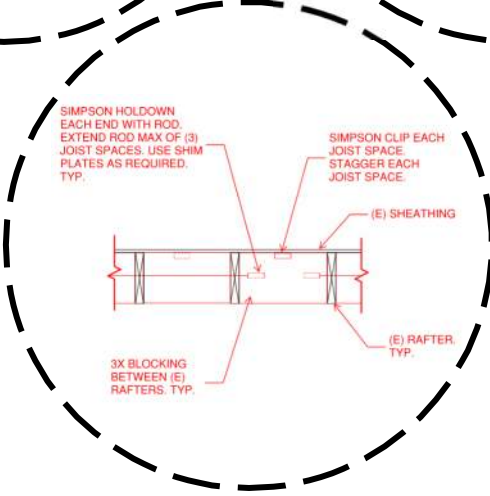
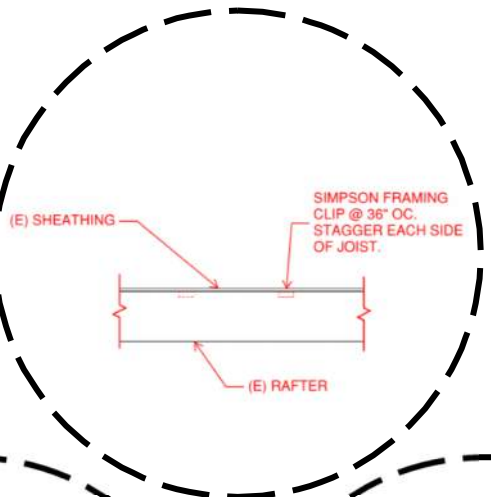
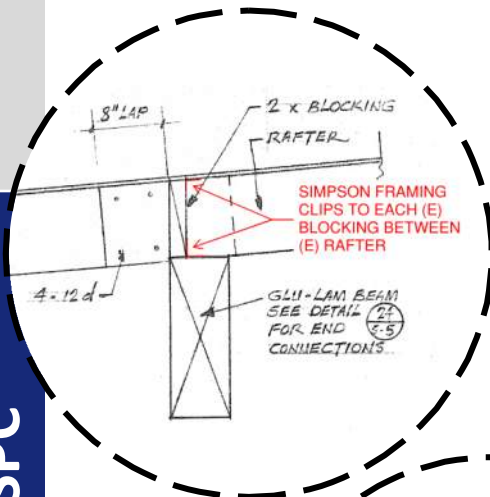




# SPC | Upgrades

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-  **ROOF COLLECTOR STRENGTHENING**
-  **NEW STRAP AND 4' SCAB ALONG SIDE OF ROOF JOIST**





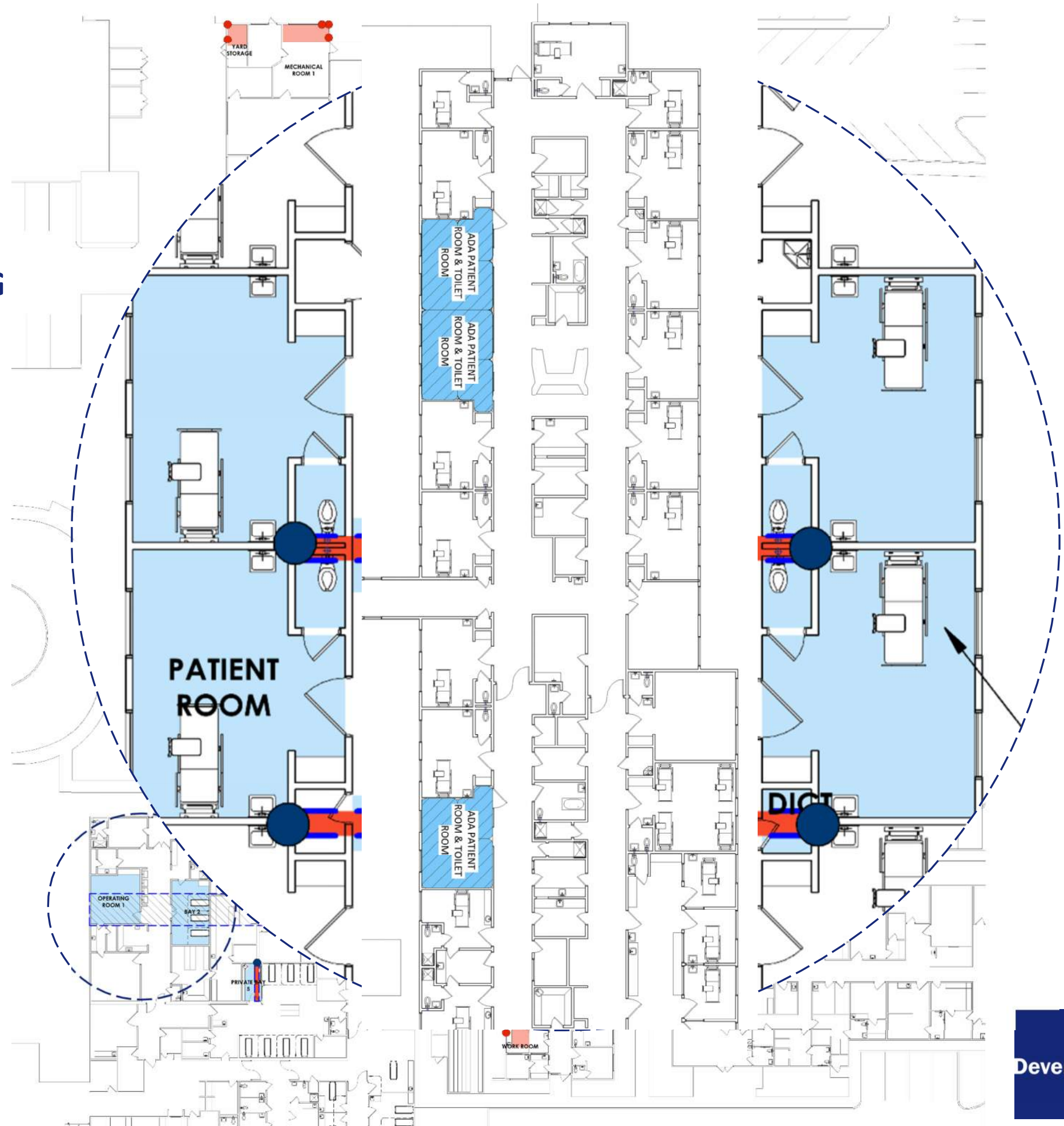
# SPC | Impacts

Adventist Mendocino Coast



## ROOF COLLECTOR STRENGTHENING NEW STRAP AND 4' SCAB ALONG SIDE OF ROOF JOIST

- WORK WITHIN PATIENT ROOM WILL REQUIRE UPGRADE TO 10% OF PATIENT ROOMS TO BE ACCESSIBLE, APPROXIMATELY (3) ROOMS
- REQUIRES APPROXIMATELY 1,000 SF OF CONSTRUCTION





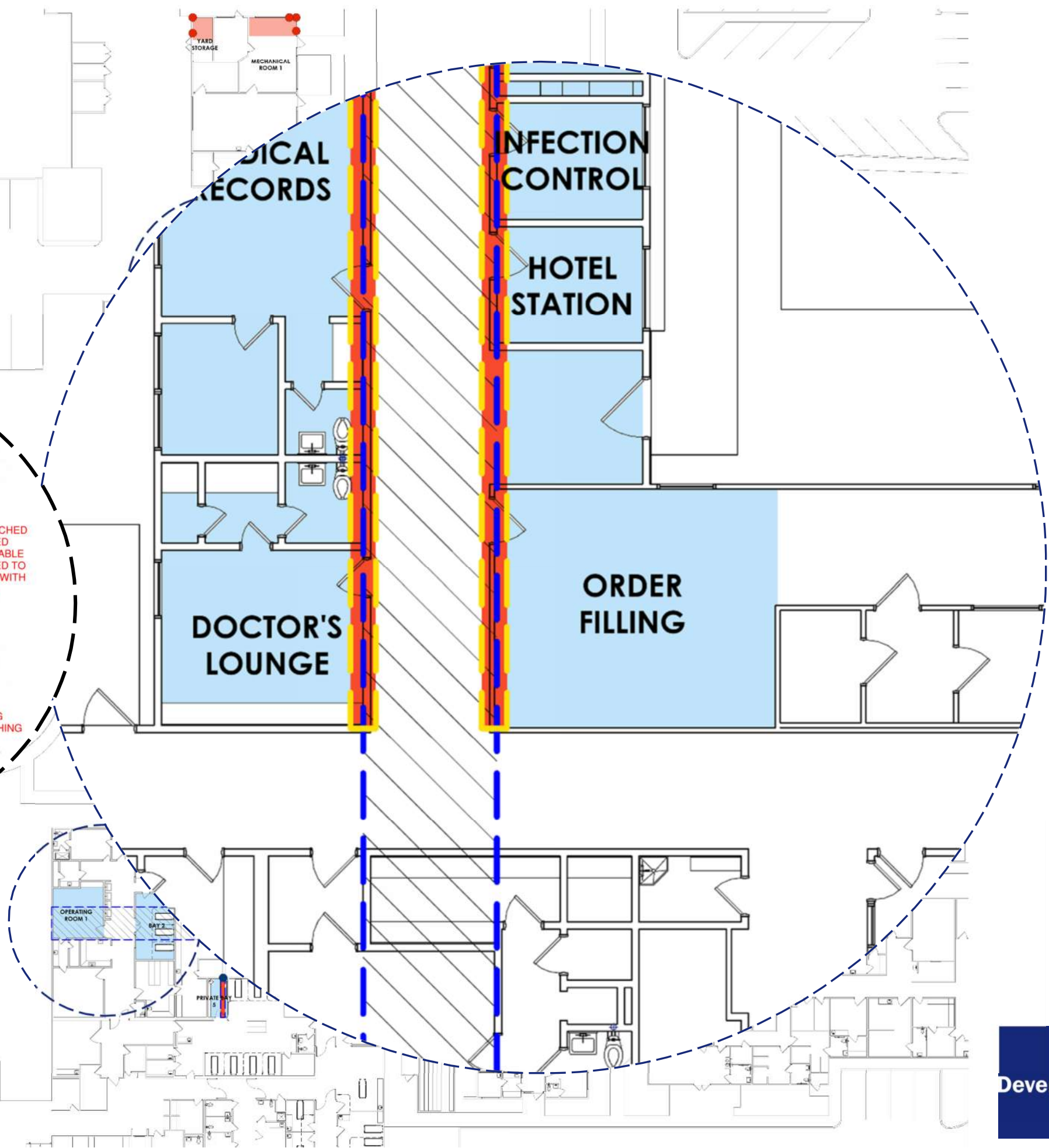
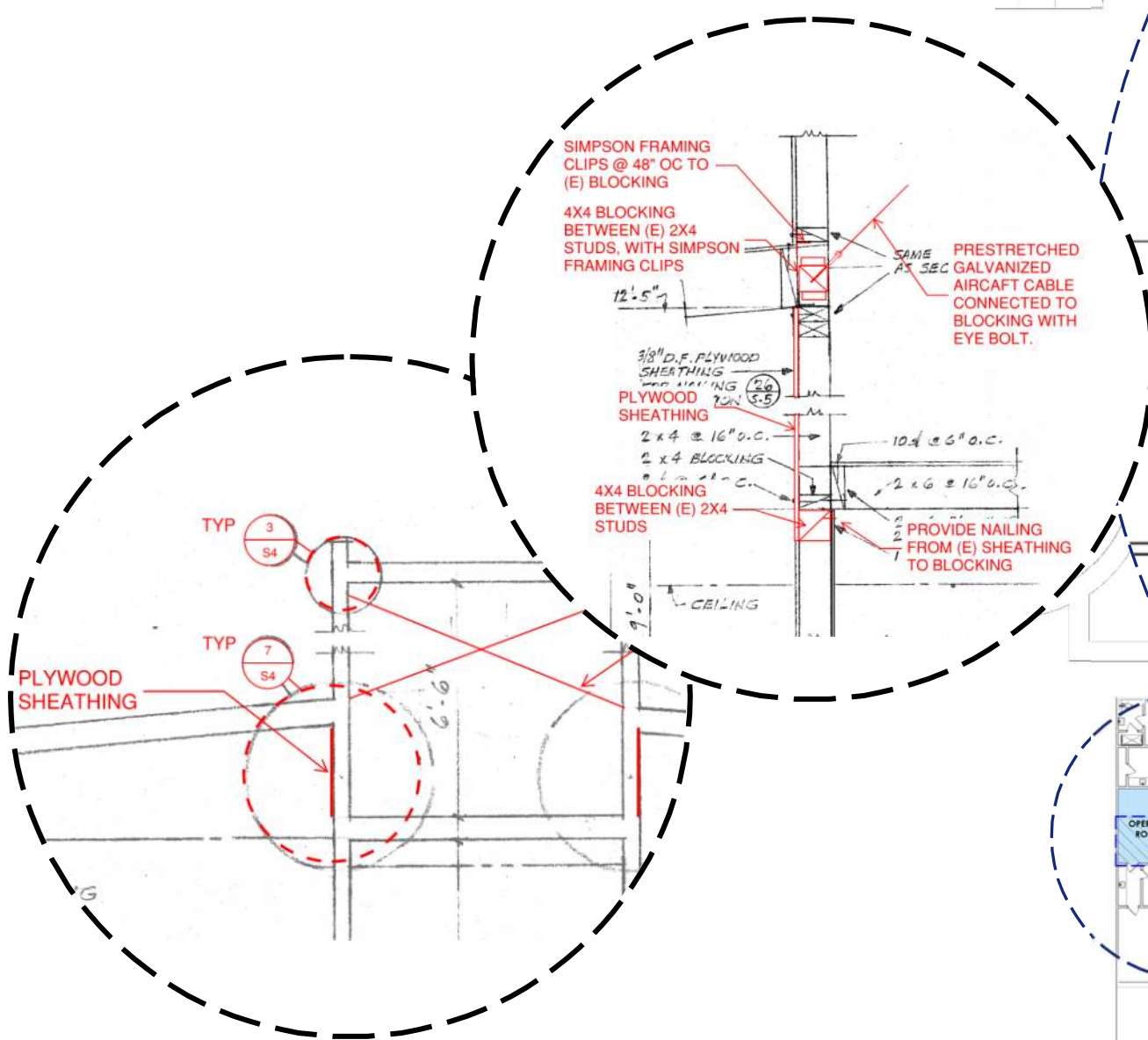




# SPC | Upgrades

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 **NEW PLYWOOD SHEATHING @ CEILING**





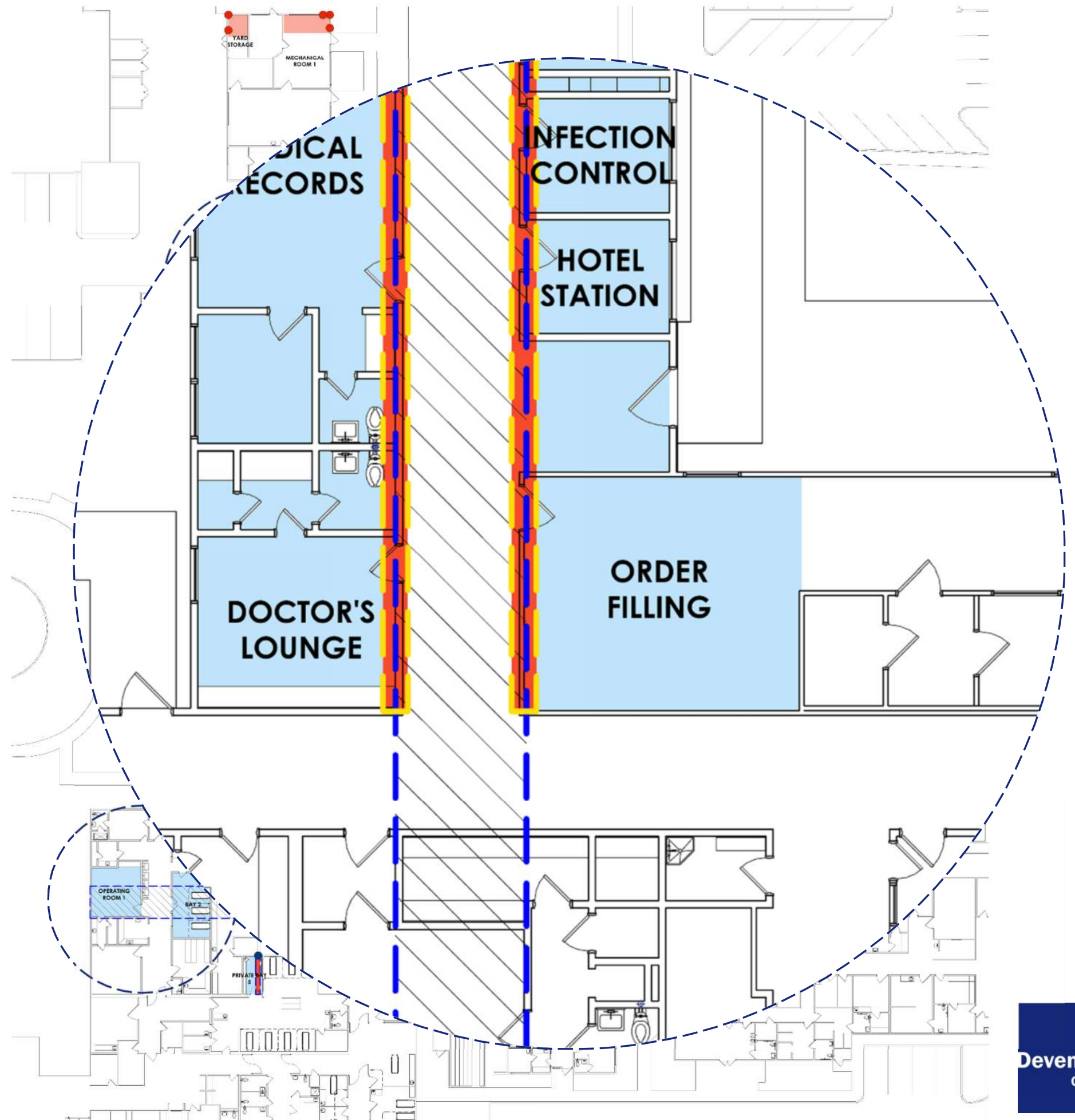
# SPC | Impact

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## NEW PLYWOOD SHEATHING @ CEILING








- CONSTRUCTION WILL HAPPEN ABOVE CEILING
- MOST WORK IS IN ADMIN AREA AND FRONT LOBBY
- LARGEST IMPACT TO OCCUR IN PHARMACY

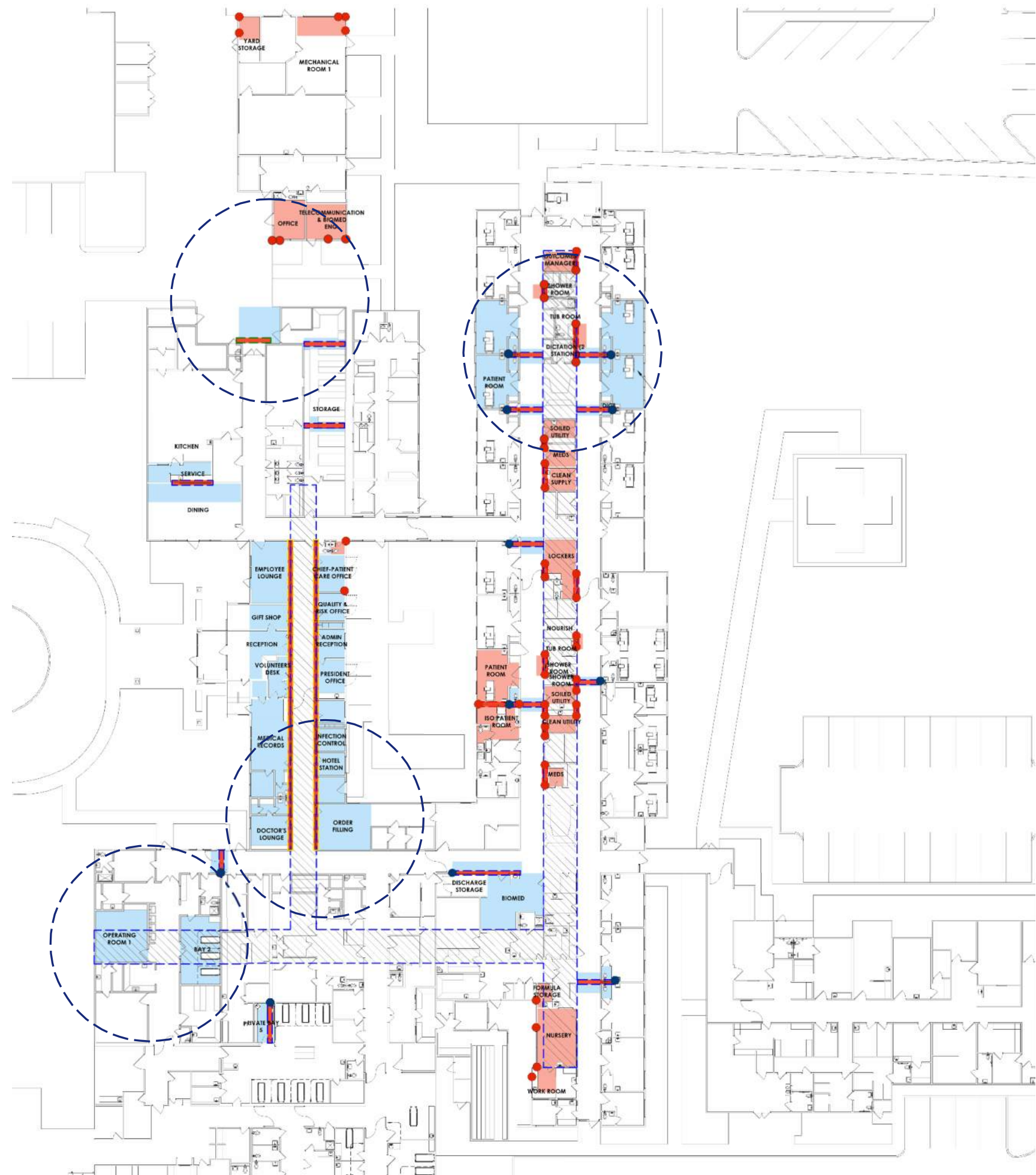




# SPC | Upgrades

Adventist Mendocino Coast

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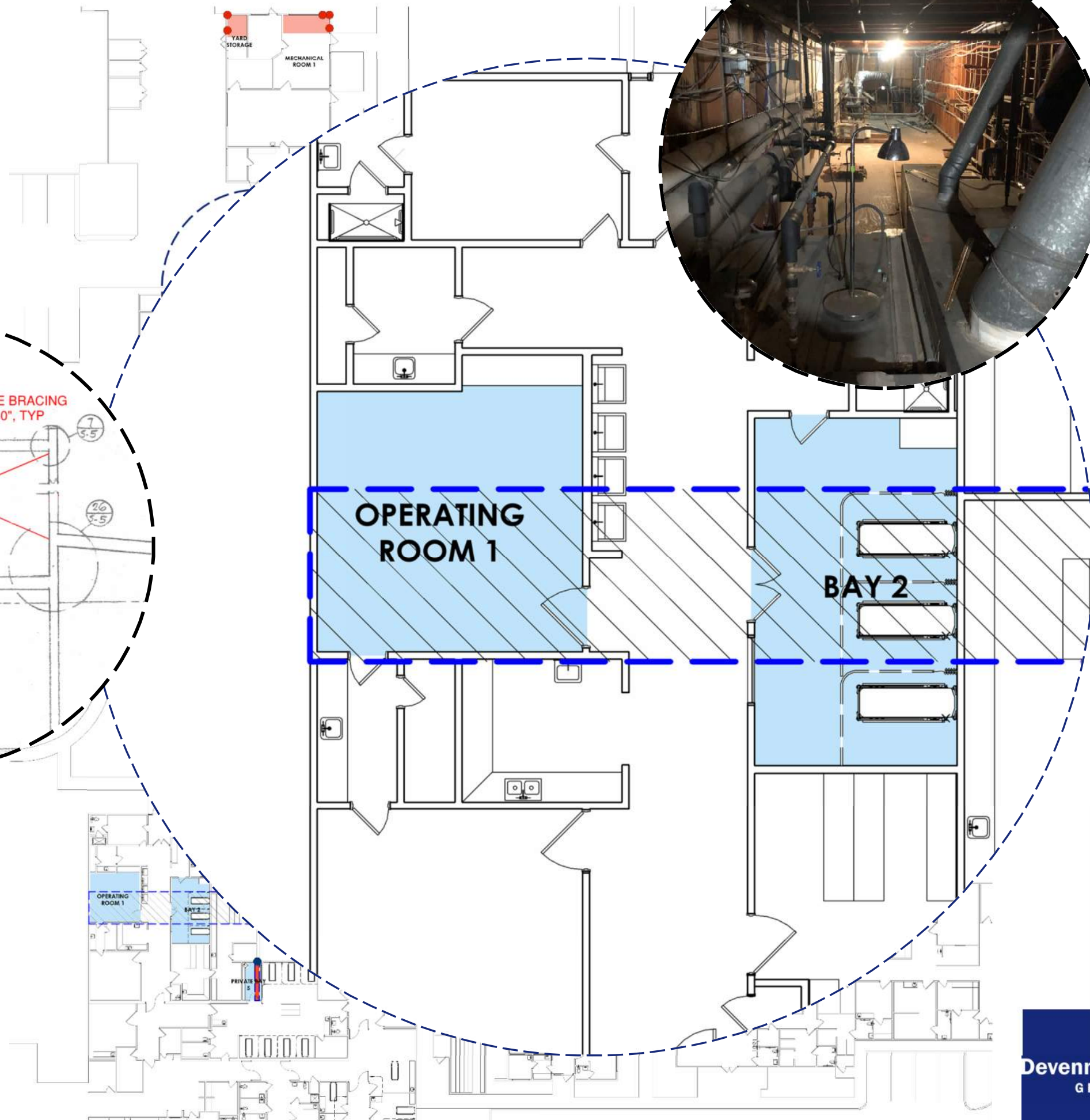
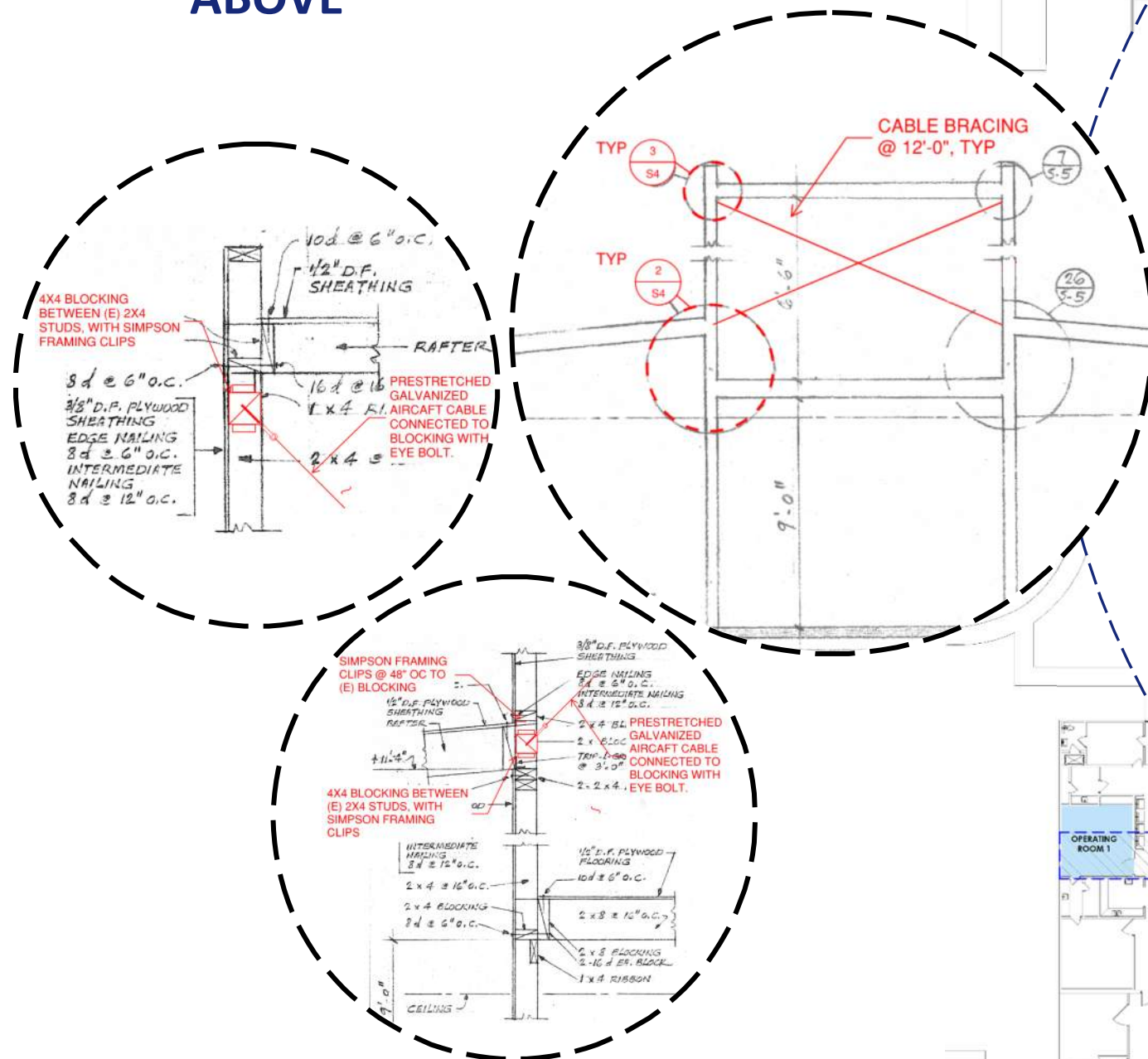




# SPC | Upgrades

Adventist Mendocino Coast

## NEW CABLE SPACING IN ATTIC ABOVE



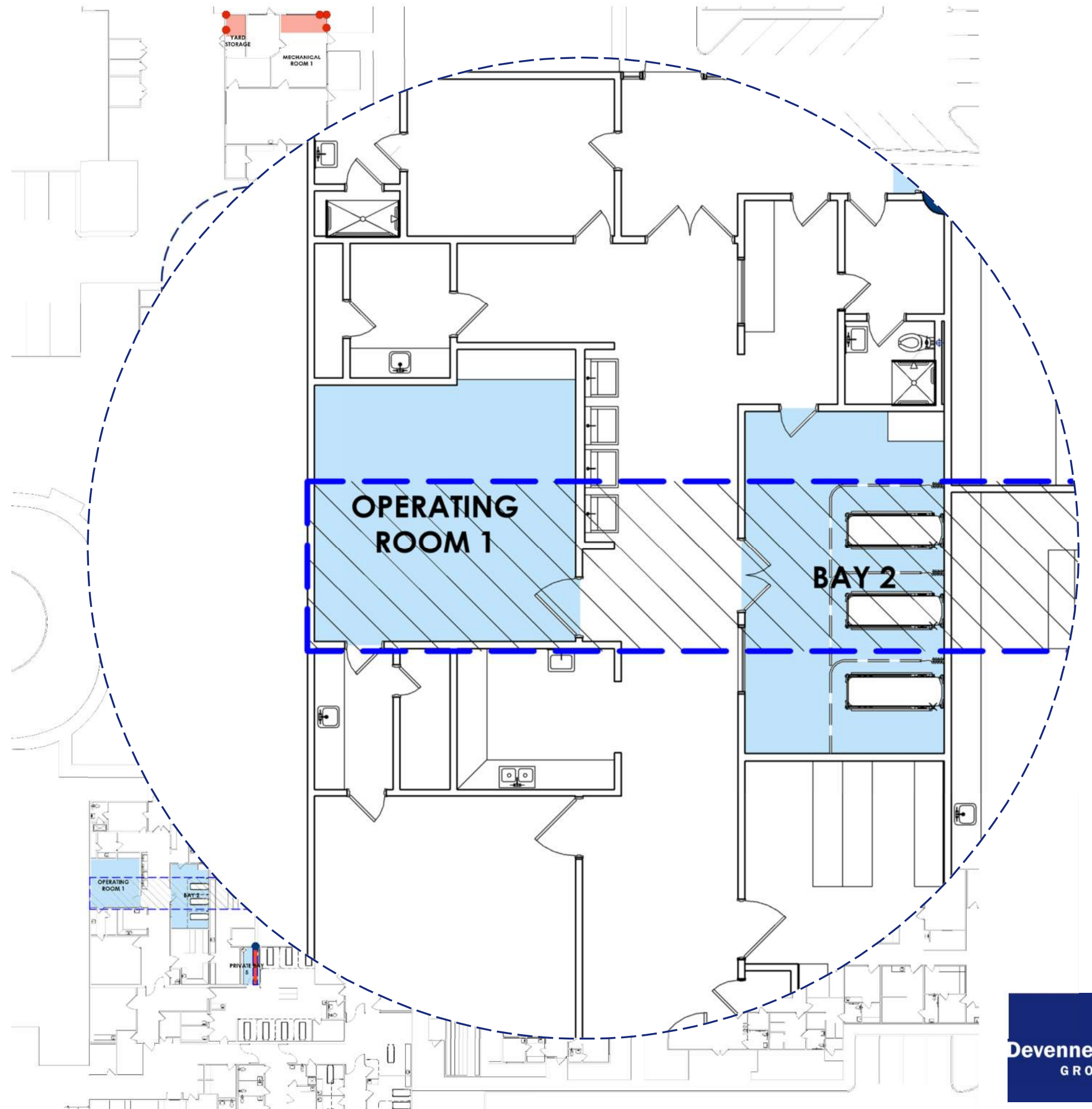


# SPC | Impacts

Adventist Mendocino Coast

## NEW CABLE SPACING IN ATTIC ABOVE








- CONSTRUCTION WILL HAPPEN IN ATTIC
- MOST WORK IS ABOVE SUPPORT AREAS NOT IMPACTING OPERATIONS
- LARGEST IMPACT TO OCCUR IN SURGERY – CONSTRUCTION TO BE COORDINATED AROUND SURGERY TIME TO NOT DISRUPT OPERATIONS

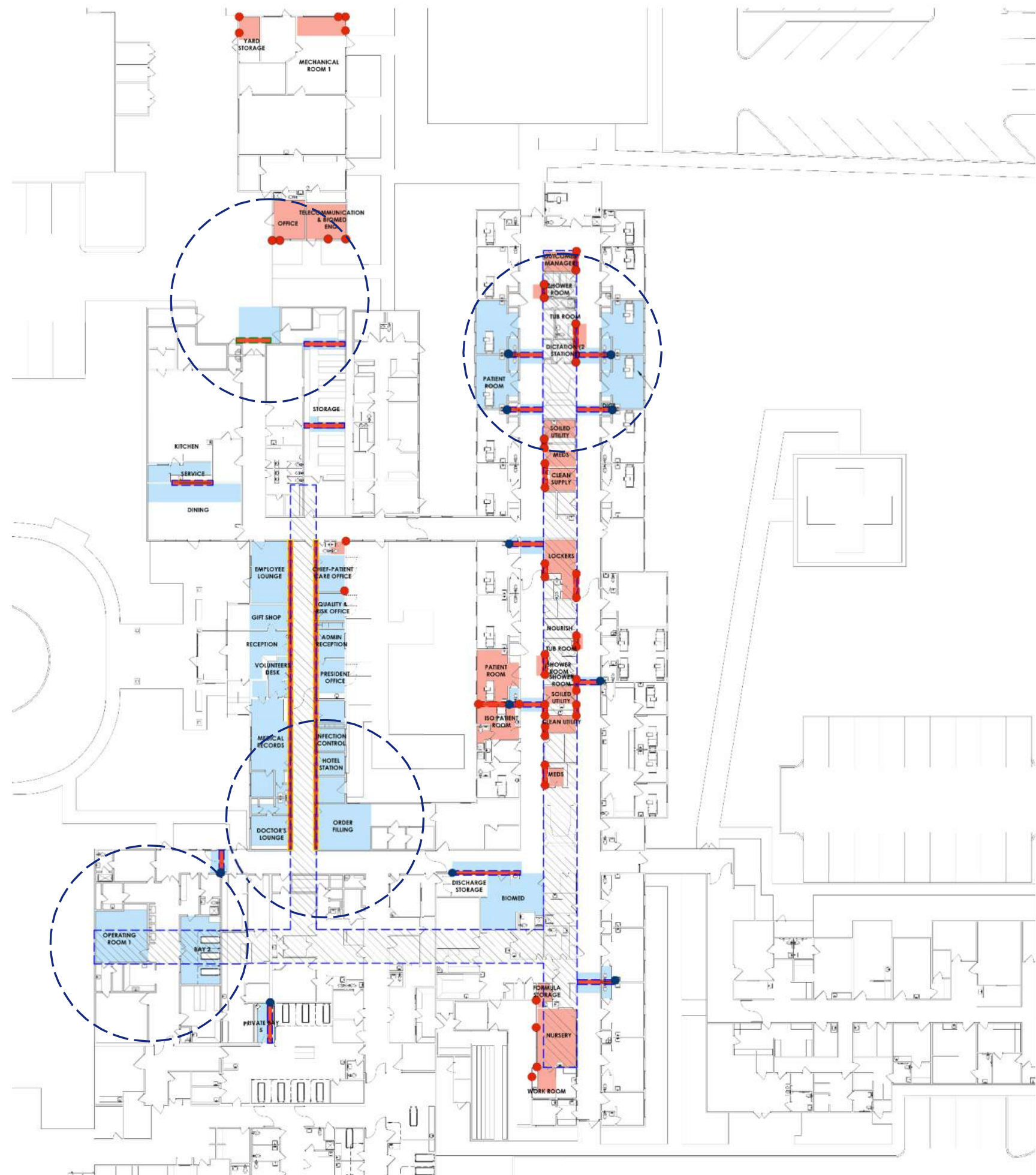




# SPC | Upgrades

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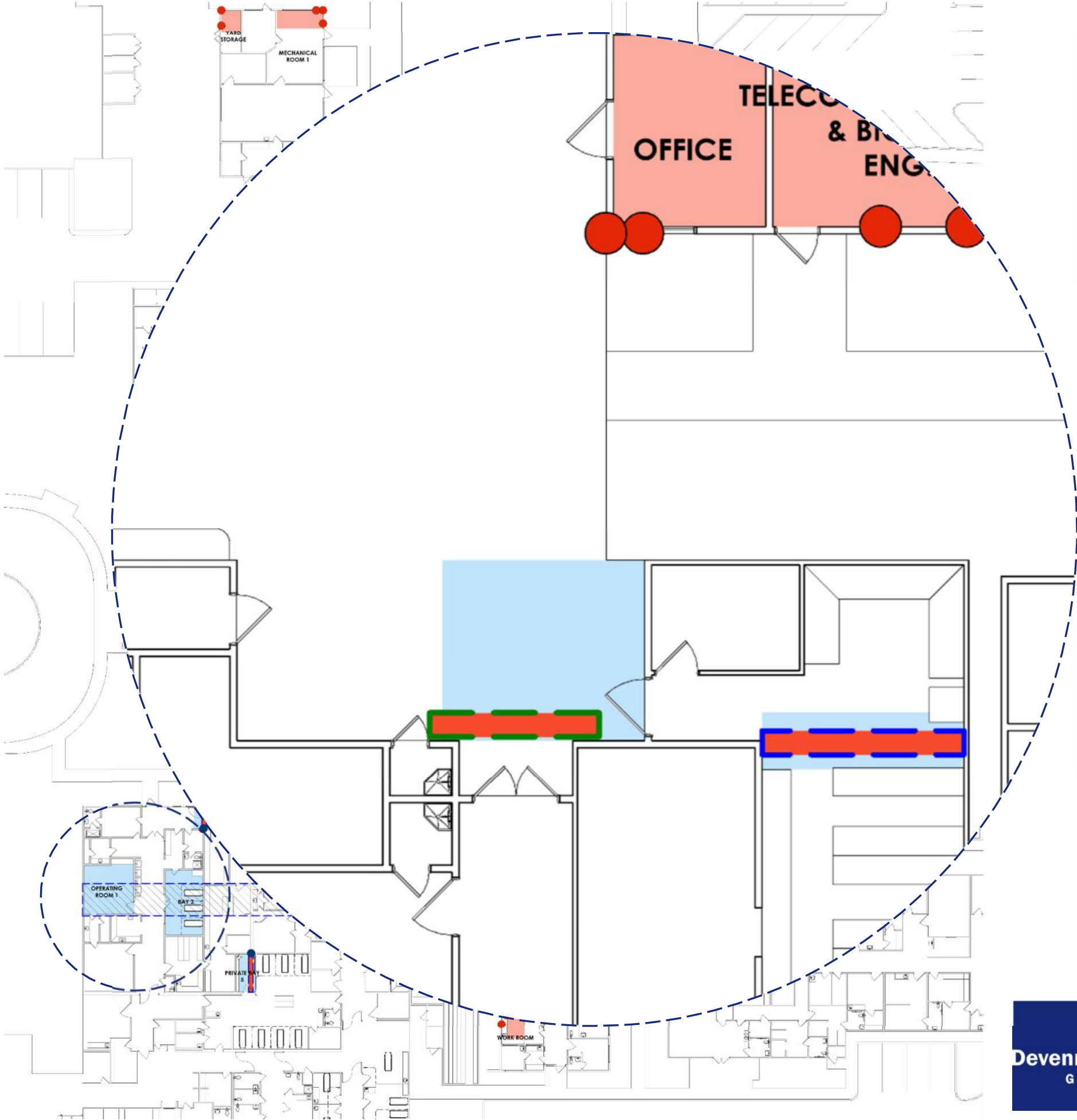




# SPC | Upgrades

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 **NEW SEISMIC GAP BETWEEN BUILDING**



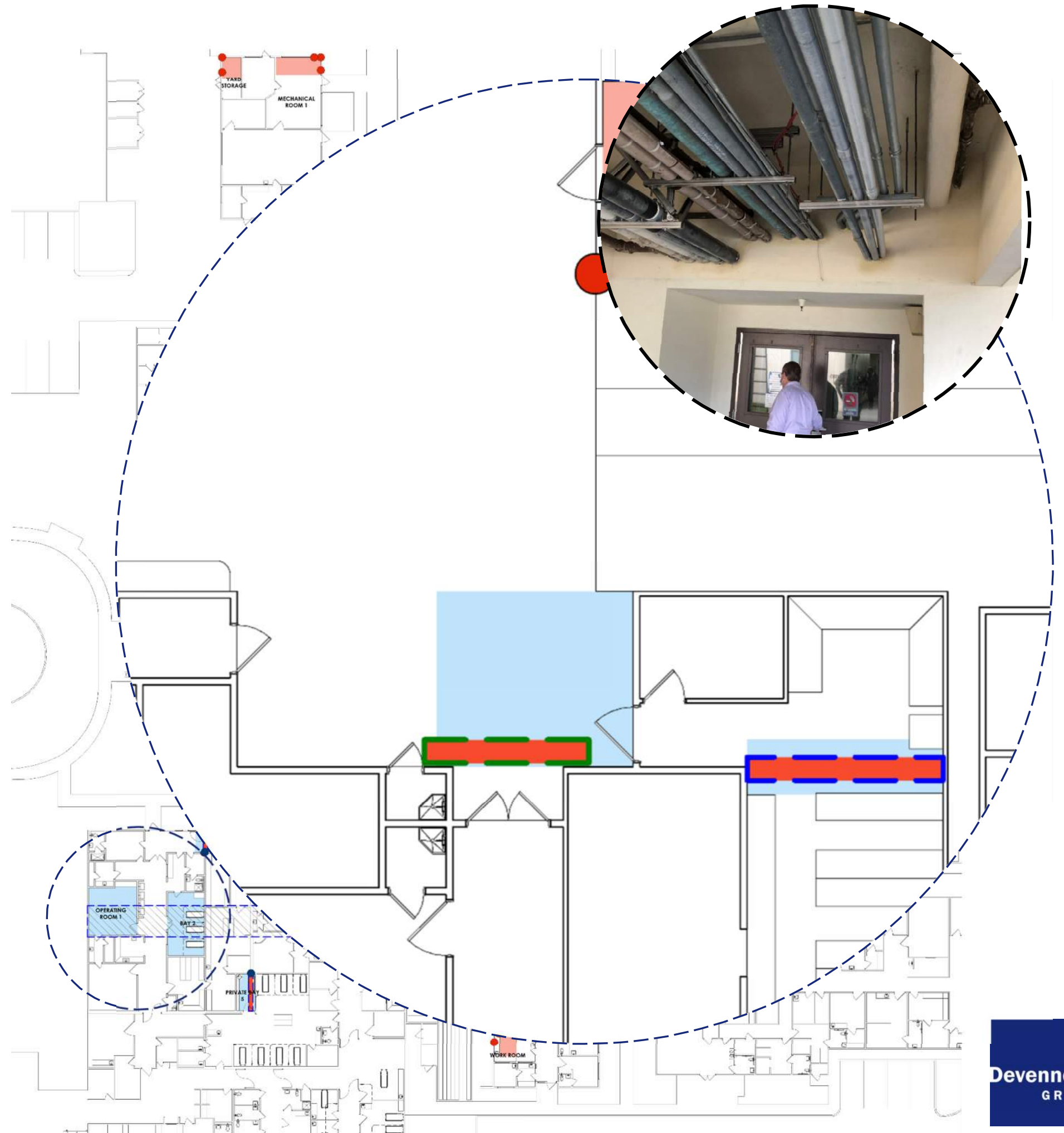


# SPC | Impacts

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## NEW SEISMIC GAP BETWEEN BUILDING

- CONSTRUCTION REQUIRES ADDING SEISMIC GAP AND SEISMIC CONNECTIONS OF UTILITIES BETWEEN CANOPY FROM CUP AND MAIN HOSPITAL BUILDING
- WILL IMPACT ALL UTILITIES GOING INTO THE FACILITY FROM CUP
- POTENTIAL TO LOSE UTILITIES DURING CERTAIN TIMES DURING CONSTRUCTION









# NPC | Overview

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GENERAL	SPC	<b>NPC</b>
		NON-STRUCTURAL PERFORMANCE CATEGORY
		REQUIRES NON-STRUCTURAL COMPONENTS IN CRITICAL CARE AREAS, CLINICAL LABORATORY SERVICES SPACES, PHARMACEUTICAL SERVICE SPACES, RADIOLOGICAL SERVICE SPACES, AND CENTRAL AND STERILE SUPPLY AREAS ARE BRACED TO SATISFY THE REQUIREMENTS OF THE 1995 CBC, PART 2, TITLE 24 TABLE 16A-O.



# NPC | Upgrades

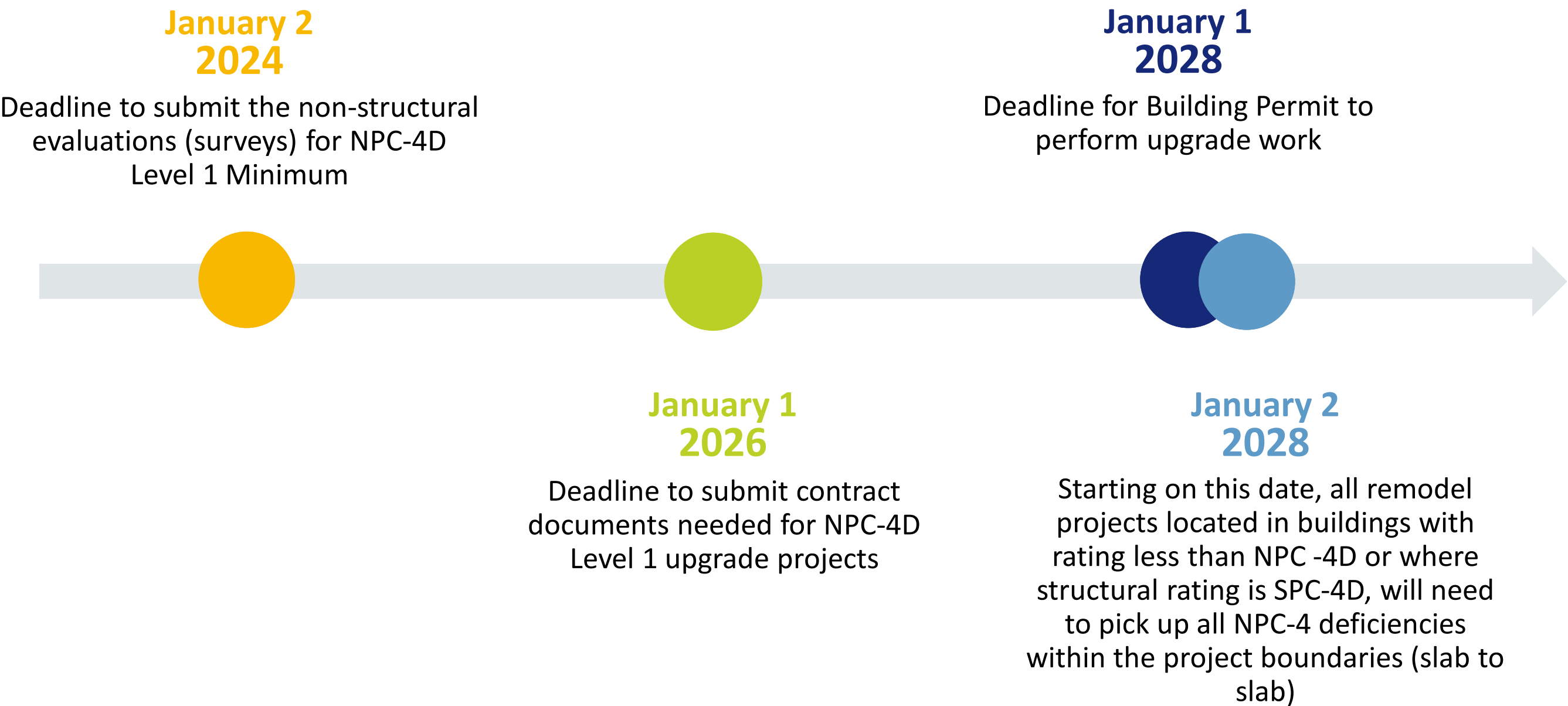
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- Bracing Compliance is organized into the following categories
  - Equipment:
    - Storage racks over 5 feet tall
    - Permanent floor supported cabinets and book stacks over 5 feet tall
    - Access floor systems
    - Wall hung cabinets and storage shelving
    - Tanks and vessels
    - Electrical, mechanical and plumbing equipment necessary for continuing operation of the facility
    - Hospital (Medical) equipment when permanently attached to the building utility services
  - Suspended Ceiling and light fixtures
  - Piping distribution systems necessary for the continuing operation of the facility
  - Sprinkler Systems



# NPC | Timeline Requirements

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# NPC | Scoping Study Steps

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- Intent of Scoping Study is to provide high level scoping of NPC-4D bracing required by 2030 with a limited timeframe – work did not include a nonstructural component survey in the field or a comprehensive review of all projects.





# NPC | Scoping Study Steps

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**STEP 1:**

Categorize each building based on year of design code and type of permit, which is primary indicator of extent of NPC work required within the building. Main Categories are:

**PRE  
1973**

Buildings not permitted by OSA or OSHPD. Components are generally not in compliance with 2030 requirements and require bracing.

**1973-  
1983**

Buildings permitting by OSA, which covers NPC compliance. Extent of work varies by 2030 and depends on extent of bracing enforced during original construction.

**1984-  
1994**

Building Permitted by OSHPD, but fire sprinkler bracing requirements are not considered compliant. Extent of work required by 2030 consists of end of line sway bracing for sprinkler branch lines

**POST  
1994**

Buildings permitting by OSHPD. Compliant and no work required by 2030

STEP 2:

STEP 3:

STEP 4:

STEP 5:



# NPC | Scoping Study Steps

Adventist Mendocino Coast

STEP 1:

STEP 2:

- Identify type and size of critical care area included within each building.
- Intent of step is to identify the extent of critical care departments at the facility within each category of building. Many critical care departments tend to be located in newer buildings resulting in less overall bracing required at the facility.

STEP 3:

STEP 4:

STEP 5:



# NPC | Scoping Study Steps

Adventist Mendocino Coast

STEP 1:
STEP 2:
STEP 3: <ul style="list-style-type: none"><li>• Outline Boundaries of critical care departments within each building on floor plans provided</li><li>• The boundaries consider the extent of departments that fall within the critical care definitions of the CBC</li></ul>
STEP 4:
STEP 5:



# NPC | Scoping Study Steps

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STEP 1:

STEP 2:

STEP 3:

STEP 4:

- Prepare matrix that includes extent of departments within each building
- The year of construction provides baseline level of bracing compliance
- Matrix Contents:
  - Departments
  - Identified Project Notes – Estimated nonstructural compliance
  - For each Department - an estimated % Compliance
  - Summary information by campus and building

STEP 5:



# NPC | Scoping Study Steps

Adventist Mendocino Coast

STEP 1:
STEP 2:
STEP 3:
STEP 4:
STEP 5: <ul style="list-style-type: none"><li>• Review select remodel document and visit site to identify extent of bracing under past projects that reduce the extent of nonstructural bracing work required by 2030</li><li>• Information is covered in notes and defines the percent of bracing compliance</li></ul>



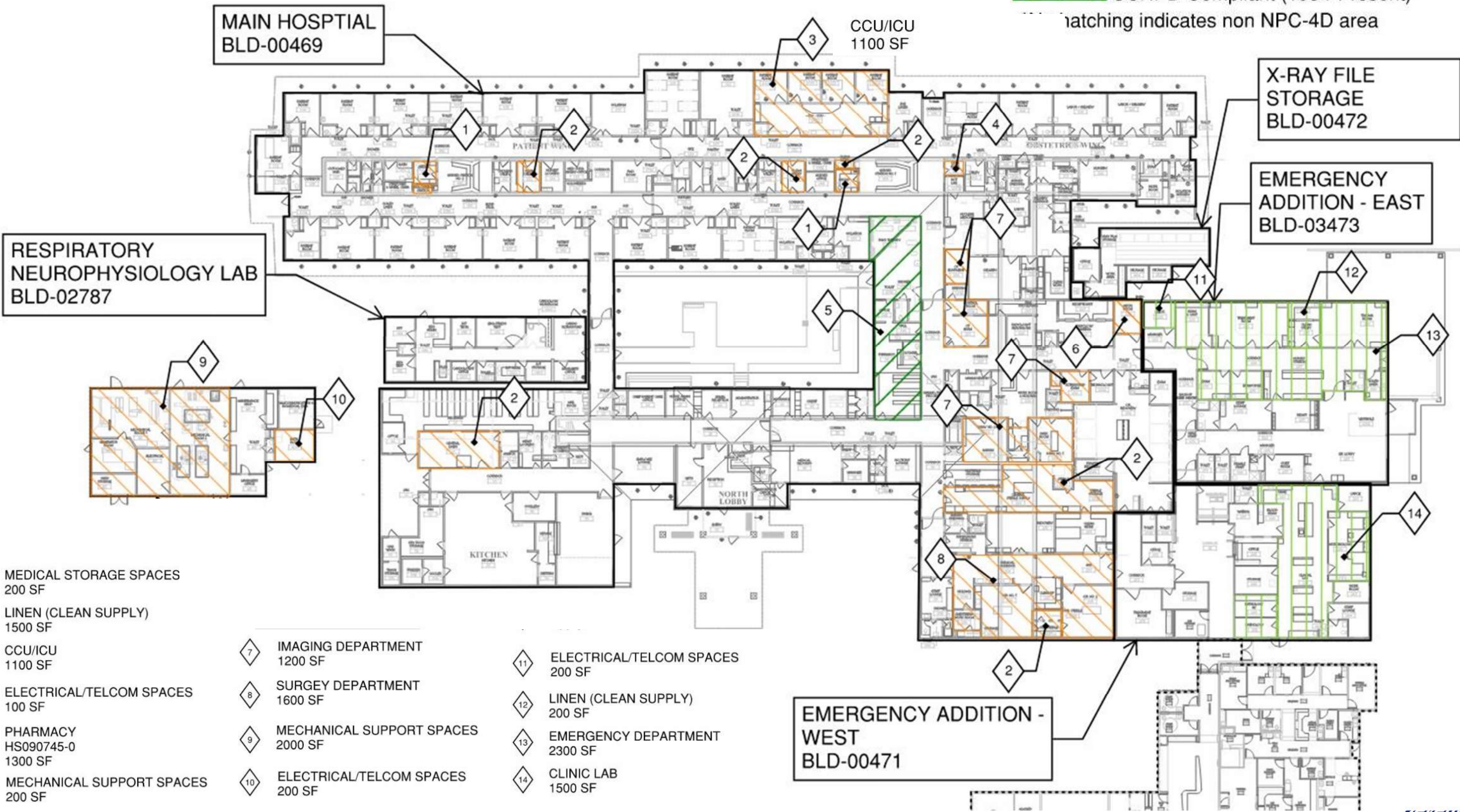
# NPC | Scoping Study

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LEGEND:

- PRE-1973
- OSA (1973-1983)
- F.S. Only (1983-1994)
- OSHDP Compliant (1994-Present)

atching indicates non NPC-4D area





# NPC | Scoping Study

Adventist Mendocino Coast

LEGEND:

-  PRE-1973
  -  OSA (1973-1983)
  -  F.S. Only (1983-1994)
  -  OSHPD Compliant (1994-Present)
- \*No hatching indicates non NPC-4D area

Campus Totals

Pre-1973 Areas =	8100	sf
1973-1983 OSA Permit Areas =		sf
1984-1994 F.S. Only Areas =	4200	sf
NPC-4D Level 1 Compliant =	1300	sf
No Work Required for NPC-4D Level 1 compliance =	42900	sf
Campus Total =	56500	sf

NPC Item Estimated % Compliant, Overall Campus				
Equipment	Ceilings	Lights	Utilities	Sprinklers
10	10	10	10	10
0	0	0	0	0
100	100	100	100	0
0	0	0	0	0
100	100	100	100	100
85	77	77	77	77

% of total square footage requiring work to achieve NPC-4D, Level 1: **22%**

**Note:** In addition, all equipment in Mechanical areas, including CUPS, roofs and penthouses, that serve critical care areas must be anchored.



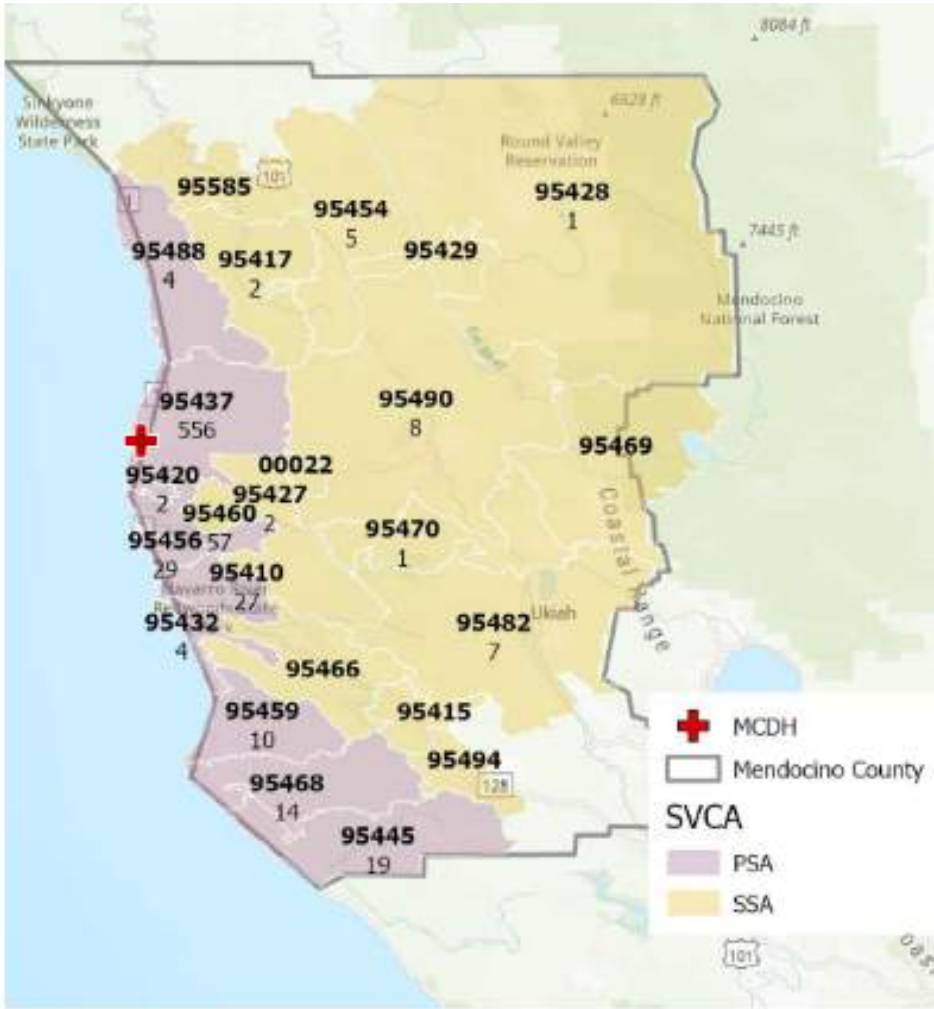
# NEW HOSPITAL | Market Assessment Findings

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- County Market projected to grow by .1% in Next ten years but Aging Population to grow in region by 13%
  - Drives overall bed need up by **4.4%**

FUTURE PROJECTED PROGRAM (2031)	MARKET PROJECTIONS <sup>1</sup>
BEDS – ICU	4
BEDS – GENERAL ACUTE	12
ED BAYS	14
SURGERY – OPERATING ROOMS	2
CT	1
RAD/FLUORO	2
ULTRASOUND	1
MRI/NM	MOBILE
ENDO	2

NOTES:  
1. BASED ON MARKET ASSESSMENTS AND FACILITY PROJECTIONS  
9.23.2022



- Primary Service Area (PSA) extends North-South 70 miles and only 10 miles inshore
  - Represents 84% of ED visits and 86% of Acute visits
- Secondary Service Area (SSA) extends to Mendocino County



# NEW HOSPITAL | Program

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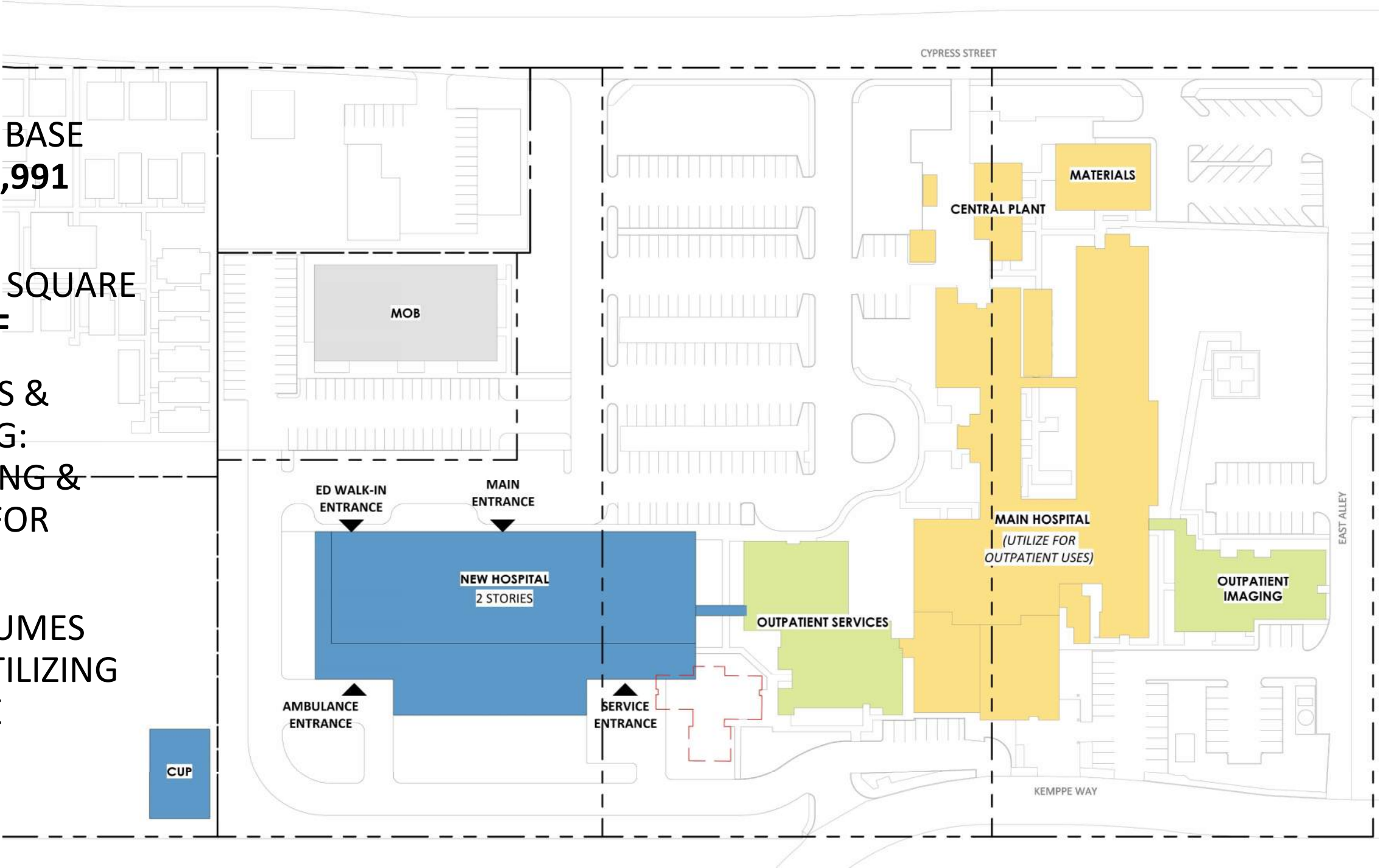
FUTURE PROJECTED PROGRAM (2031)	NEW HOSPITAL PROGRAM	EXISTING HOSPITAL PROGRAM	DELTA
BEDS – ICU	4	4	
BEDS – GENERAL ACUTE	21	21	
ED BAYS	14	8	+ 6
SURGERY – OPERATING ROOMS	2	2	
CT	0	0	
RAD/FLUORO	1	1	
ULTRASOUND	0	0	
MRI/NM	0	0	
ENDO	2	1	+ 1



# NEW HOSPITAL | Proposed Square Footage

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- PROPOSED HOSPITAL BASE  
SQUARE FOOTAGE: **62,991 BGSF**
- PROPOSED CUP BASE SQUARE  
FOOTAGE: **2,352 BGSF**
- OUTPATIENT SERVICES &  
OUTPATIENT IMAGING:  
ASSUMES MAINTAINING &  
UTILIZING IMAGING FOR  
HOSPITAL
- MAIN HOSPITAL: ASSUMES  
DELICENSING AND UTILIZING  
FOR OUTPATIENT USE





# General I Pricing

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	SPC/NPC CAMPUS UPGRADES	NEW HOSPITAL CONSTRUCTION <sup>1</sup>
SPC 4D UPGRADES	\$4,602,325	
NPC 4D UPGRADES	\$7,532,272	
NEW HOSPITAL		\$84,733,741
CENTRAL UTILITY PLANT		\$12,018,324
<b>TOTAL CONSTRUCTION COSTS</b>	<b>\$12,134,597 <sup>2,3,4</sup></b>	<b>\$107,543,459 <sup>1</sup></b>

Notes:

- 1. Assumes construction through 06/2028
- 2. Excludes NPC 5
- 3. Excludes Full Building NPC 4 Upgrades
- 4. SPC/NPC upgrades does not include any operational upgrades



# Questions

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